(gels, cream). It slowly lowers or raises a rotating T-bar spindle into the sample so that not always the same region of the sample is sheared (helical path). Thus, the viscometer measures constantly the viscosity in fresh material, and is thus thought to be the most suitable for measuring stirred yogurt viscosity. A speed of 30 rpm was used for 31 measuring points, at an interval of 3 sec. The average of the values between 60 and 90 seconds are reported.

7. Serum Viscosity

[0091] A yogurt can be seen as a two-phase system: a protein rich phase embedded into a water-rich serum phase. The viscosity of such a system will be determined by the collective contribution of the two phases. In order to determine the contribution of the serum phase, the latter has been isolated by centrifugation of tubes filled with 40 g yogurt each in a BHG Hermle Z320 centrifuge (1 h at 4000 RPM/2500 g). The clear serum phase is decanted. This serum viscosity is measured using a Physica MCR 300 Rheometer. After loading, a shear rate sweep is applied to the samples: This consists of applying an increasing shear rate to the yogurts ranging from 40 s^{-1} to 1000 s^{-1} on a logarithmic scale with 5 measuring points per decade. The serum viscosity is defined as the measured viscosity at 100 s^{-1}.

8. Gel Strength

[0092] The samples were measured using a Physica MCR501 rheometer equipped with a concentric cylinder measurement system (CC-27). A solvent trap was used to prevent evaporation of water as much as possible. The samples were slightly stirred with a spoon before loading into the rheometer. Before measuring, the samples were allowed to rest and brought to the measuring temperature (25° C.) and maintained at that temperature for 5 minutes. In order to determine the gel strength (i.e. the dynamic shear modulus G (Pa)), a strain sweep is applied to the sample: this is an oscillatory test where at a fixed angular frequency (omega=10 rad/s) an increasing amplitude is applied: on a logarithmic scale the amplitude is increased from 0.01 to 100% with 5 measuring points per decade. The gel strength of a material is defined as the average of the measured moduli between the strain of 0.01% to 0.25% (so in the linear regime).

9. Sensory Analysis

[0093] In a sensory analysis the attributes thickness of mouth feel and ropiness are analysed. Thickness of mouth feel is the degree in which the product feels thick in the mouth. This sensation can be best perceived between tongue and palate. Ropiness is the degree in which the yogurt runs from the spoon.

[0094] The method used to perform the sensory analysis for the ropy structure and thickness in mouth feel was a ranking test. The panelists received the four products simultaneously in random order. The assessors were asked to rank the samples according to the specified attribute from least to most. The two attributes were assessed separately using new three digit codes to avoid any bias. The results were obtained by using the software FIZZ acquisition (Biosystemes, France, Couternon). Hereafter the results were computed by using the Friedman test (analysis of variance by ranks). As four products per recipe have to be measured, three sessions were held, resulting in 22 observations per measurement. The sum of ranks is calculated by measuring the total allocated 1, 2, 3 or 4 points, wherein 1 point is allocated for the lowest rank and 4 points for the highest rank.

EXAMPLES

Example 1

Effect of Lactic Acid Bacterial Strains on the Gel Strength and the Serum Viscosity of a Yogurt

[0095] Yogurt was made according to recipe A as defined in Table 3 and according to the method described in the Materials and Methods.

TABLE 4

	Composition (see Table 3)				
Attribute	Reference	ABCDE	BE	DE	BDE
Time to reach pH = 4.6 (min)	470	445	445	515	479
Brookfield (Pa * s)	6	7	9	7	10
Shear stress (Pa)	17	21	23	17	27
Gel strength dynamic modulus G* (Pa)	58	70	64	75	80
Serum viscosity (mPa * s)	1.42	1.46	1.58	1.48	1.62

[0096] The results show that all compositions BE, DE, BDE and ABCDE improve the gel strength and serum viscosity compared to the Reference composition.

Example 2

Effect of Lactic Acid Bacterial Strains on the Gel Strength of a Yogurt

[0097] Yogurt was made according to recipe D as defined in Table 3 and according to the method described in the Materials and Methods.

TABLE 5

	Composition (see Table 3)						
Attribute	Reference	ABCDE	AE	BE	CE	DE	BDE
Time to reach pH = 4.6 (min)	495	468	1102	434	853	1094	343
Brookfield (Pa * s)	6.5	8.6	5.5	7.8	5.1	8.1	14
Shear stress (Pa)	20	23	16	24	15	18	39
Gel strength dynamic modulus G* (Pa)	71	74	76	84	80	75	111